



17364 U.S. PTO

Please type a plus sign (+) in this box → ☐

PTO/SB/05 (08-03)
Approved for use through 7/31/2006. OMB 0651-0032
Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

**UTILITY
PATENT APPLICATION
TRANSMITTAL**

(Only for new nonprovisional applications under 37 CFR 1.53 (b))

Attorney Docket No.: 102.0026

First Named Inventor or Application Identifier: Julian R. Cudmore, et al.

Title: System and Method for Optimizing Production in an Artificially Lifted Well

Express Mail Label No.: EV 335954425 US

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

ADDRESS TO:

Mail Stop: Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

1. ☒ Fee Transmittal Form (e.g., PTO/SB/17)
(Submit an original and duplicate for fee processing)
2. ☒ Specification [Total Pages: 31]
 - Descriptive title of the Invention
 - Cross Reference to Related Applications
 - Statement Regarding Fed-sponsored R & D
 - Reference to sequence listing, a table, or a computer program listing appendix
 - Background of the Invention
 - Brief Summary of the Invention
 - Brief Descriptions of the Drawings (if filed)
 - Detailed Description
 - Claim(s)
 - Abstract of the Disclosure
3. ☒ Drawings (35 U.S.C. 113) [Total Sheets: 11]
4. ☐ Oath or Declaration [Total Pages:]
 - a. ☐ Newly executed (original or copy)
 - b. ☐ Copy from prior application (37 CFR 1.63 (d))
(for continuation/divisional with Box 16 completed)
 - i. ☐ **DELETION OF INVENTOR(S)**
Signed statement attached deleting inventor(s) named in the prior application, see 37 CFR 1.63(d)(2) and 1.33(b).

5. ☐ CD-ROM or CD-R in duplicate, large table or Computer Program (Appendix)
6. ☐ Nucleotide and/or Amino Acid Sequence Submission (if applicable, all necessary)
 - a. ☐ Computer Readable Copy
 - b. ☐ Paper Copy
 - c. ☐ Statement verifying identity of above copies

ACCOMPANYING APPLICATION PARTS

7. ☐ Assignment papers (cover sheet & document(s))
8. ☐ 37 C.F.R. 3.73(b) Statement ☐ Power of Attorney (when there is an assignee)
9. ☐ English Translation Document (if applicable)
10. ☒ Information Disclosure ☒ Copies of IDS Statement (IDS)/Form 1449 Citations
11. ☐ Preliminary Amendment
12. ☒ Return Receipt Postcard (MPEP 503) (Should be specifically itemized)
13. ☐ Certified Copy of Priority Document(s) (if foreign priority is claimed)
14. ☐ Nonpublication Request under 35 U.S.C.122 (b)(2)(B)(i). Applicant must attach form PTO/SB/35
15. ☐ Other: _____

16. If a CONTINUING APPLICATION, check appropriate box and supply the requisite information below and in a preliminary amendment:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: _____ / _____
Prior application information: Examiner: _____ Group/Art Unit: _____

For CONTINUATION or DIVISIONAL APPS only: The entire disclosure of the prior application, from which an oath or declaration is supplied under Box 4b, is considered a part of the disclosure of the accompanying continuation or divisional application and is hereby incorporated by reference. The incorporation can only be relied upon when a portion has been inadvertently omitted from the submitted application parts.

17. CORRESPONDENCE ADDRESS

☐ Customer Number or Bar Code Label (Insert customer No. or Attach bar code label here) or ☒ Correspondence address below

NAME	Schlumberger Technology Corporation, Schlumberger Reservoir Completions				
ADDRESS	14910 Airline Road P.O. Box 1590				
CITY	Rosharon	STATE	Texas	ZIP CODE	77583-1590
COUNTRY	U.S.	TELEPHONE	(281) 285-5720	FAX	(281) 285-5537
Name (Print/Type)	Jeffrey E. Griffin		Registration No. (Attorney/Agent): 36,534		
Signature				Date: February 3, 2004	

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



020304

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Julian R. Cudmore, et al.

Attorney Docket No.: 102.0026

Serial No.:

Art Unit:

Filed:

Examiner:

For: **System and Method for Optimizing Production in an Artificially Lifted Well**

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this **Fee Calculation Sheet** (in duplicate) is being deposited with the United States Postal Service as Express Mail No. EV 335954425 US in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Rhonda J. Smith

February 3, 2004
Date

Rhonda J. Smith
Schlumberger Technology Corporation
14910 Airline Road
Rosharon, Texas 77583-1590

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

FEE TRANSMITTAL				<i>Complete if Known</i>																																																																																																																																																																					
For FY 2004																																																																																																																																																																									
<i>Effective 01/01/2003. Patent fees are subject to annual revision.</i>																																																																																																																																																																									
TOTAL AMOUNT OF PAYMENT		\$1436		Application Number																																																																																																																																																																					
				Filing Date																																																																																																																																																																					
				First Named Inventor		Julian R. Cudmore, et al.																																																																																																																																																																			
				Group Art Unit																																																																																																																																																																					
				Examiner Name																																																																																																																																																																					
				Attorney Docket Number		102.0026																																																																																																																																																																			
METHOD OF PAYMENT (Check all that apply)				FEE CALCULATION (continued)																																																																																																																																																																					
1. <input checked="" type="checkbox"/> The Commissioner is hereby authorized to charge indicated fees and credit any over payments to: Deposit Account Number: 50-2475 Deposit Account Name: Schlumberger Technology Corp. <input checked="" type="checkbox"/> Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17				3. ADDITIONAL FEES <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>105</td><td>130</td><td>205</td><td>65</td><td>Surcharge - late filing fee or oath</td><td></td></tr> <tr><td>127</td><td>50</td><td>227</td><td>25</td><td>Surcharge - late provisional filing fee or cover sheet.</td><td></td></tr> <tr><td>139</td><td>130</td><td>139</td><td>130</td><td>Non-English specification</td><td></td></tr> <tr><td>147</td><td>2,520</td><td>147</td><td>2,520</td><td>For filing a request for reexamination</td><td></td></tr> <tr><td>112</td><td>920*</td><td>112</td><td>920*</td><td>Requesting publication of SIR prior to Examiner action</td><td></td></tr> <tr><td>113</td><td>1840*</td><td>113</td><td>1840*</td><td>Requesting publication of SIR after Examiner action</td><td></td></tr> <tr><td>115</td><td>110</td><td>215</td><td>55</td><td>Extension for response within first month</td><td></td></tr> <tr><td>116</td><td>380</td><td>216</td><td>190</td><td>Extension for response within second month</td><td></td></tr> <tr><td>117</td><td>870</td><td>217</td><td>435</td><td>Extension for response within third month</td><td></td></tr> <tr><td>118</td><td>1,360</td><td>218</td><td>680</td><td>Extension for response within fourth month</td><td></td></tr> <tr><td>128</td><td>1,850</td><td>228</td><td>925</td><td>Extension for response within fifth month</td><td></td></tr> <tr><td>119</td><td>300</td><td>219</td><td>150</td><td>Notice of Appeal</td><td></td></tr> <tr><td>120</td><td>300</td><td>220</td><td>150</td><td>Filing a brief in support of an appeal</td><td></td></tr> <tr><td>121</td><td>260</td><td>221</td><td>130</td><td>Request for oral hearing</td><td></td></tr> <tr><td>138</td><td>1,510</td><td>138</td><td>1,510</td><td>Petition to institute a public use proceeding</td><td></td></tr> <tr><td>140</td><td>110</td><td>240</td><td>55</td><td>Petition to revive unavoidably abandoned application</td><td></td></tr> <tr><td>141</td><td>1,210</td><td>241</td><td>605</td><td>Petition to revive unintentionally abandoned application</td><td></td></tr> <tr><td>142</td><td>1,210</td><td>242</td><td>605</td><td>Utility issue fee</td><td></td></tr> <tr><td>143</td><td>430</td><td>243</td><td>215</td><td>Design issue fee</td><td></td></tr> <tr><td>144</td><td>580</td><td>244</td><td>290</td><td>Plant issue fee</td><td></td></tr> <tr><td>122</td><td>130</td><td>122</td><td>130</td><td>Petition to Commissioner</td><td></td></tr> <tr><td>123</td><td>50</td><td>123</td><td>50</td><td>Petitions related to provisional applications</td><td></td></tr> <tr><td>126</td><td>240</td><td>126</td><td>240</td><td>Submission of Information Disclosure Stmt</td><td></td></tr> <tr><td>581</td><td>40</td><td>581</td><td>40</td><td>Recording each patent assignment property (times number of properties)</td><td></td></tr> <tr><td>146</td><td>760</td><td>246</td><td>380</td><td>Filing a submission after final rejection (37 CFR 1.129(a))</td><td></td></tr> <tr><td>149</td><td>760</td><td>249</td><td>380</td><td>For each additional invention to be examined (37 CFR 1.129(b))</td><td></td></tr> </tbody> </table>				Large Entity Fee Code	Entity Fee (\$)	Small Entity Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	105	130	205	65	Surcharge - late filing fee or oath		127	50	227	25	Surcharge - late provisional filing fee or cover sheet.		139	130	139	130	Non-English specification		147	2,520	147	2,520	For filing a request for reexamination		112	920*	112	920*	Requesting publication of SIR prior to Examiner action		113	1840*	113	1840*	Requesting publication of SIR after Examiner action		115	110	215	55	Extension for response within first month		116	380	216	190	Extension for response within second month		117	870	217	435	Extension for response within third month		118	1,360	218	680	Extension for response within fourth month		128	1,850	228	925	Extension for response within fifth month		119	300	219	150	Notice of Appeal		120	300	220	150	Filing a brief in support of an appeal		121	260	221	130	Request for oral hearing		138	1,510	138	1,510	Petition to institute a public use proceeding		140	110	240	55	Petition to revive unavoidably abandoned application		141	1,210	241	605	Petition to revive unintentionally abandoned application		142	1,210	242	605	Utility issue fee		143	430	243	215	Design issue fee		144	580	244	290	Plant issue fee		122	130	122	130	Petition to Commissioner		123	50	123	50	Petitions related to provisional applications		126	240	126	240	Submission of Information Disclosure Stmt		581	40	581	40	Recording each patent assignment property (times number of properties)		146	760	246	380	Filing a submission after final rejection (37 CFR 1.129(a))		149	760	249	380	For each additional invention to be examined (37 CFR 1.129(b))	
Large Entity Fee Code	Entity Fee (\$)	Small Entity Fee Code	Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																				
105	130	205	65	Surcharge - late filing fee or oath																																																																																																																																																																					
127	50	227	25	Surcharge - late provisional filing fee or cover sheet.																																																																																																																																																																					
139	130	139	130	Non-English specification																																																																																																																																																																					
147	2,520	147	2,520	For filing a request for reexamination																																																																																																																																																																					
112	920*	112	920*	Requesting publication of SIR prior to Examiner action																																																																																																																																																																					
113	1840*	113	1840*	Requesting publication of SIR after Examiner action																																																																																																																																																																					
115	110	215	55	Extension for response within first month																																																																																																																																																																					
116	380	216	190	Extension for response within second month																																																																																																																																																																					
117	870	217	435	Extension for response within third month																																																																																																																																																																					
118	1,360	218	680	Extension for response within fourth month																																																																																																																																																																					
128	1,850	228	925	Extension for response within fifth month																																																																																																																																																																					
119	300	219	150	Notice of Appeal																																																																																																																																																																					
120	300	220	150	Filing a brief in support of an appeal																																																																																																																																																																					
121	260	221	130	Request for oral hearing																																																																																																																																																																					
138	1,510	138	1,510	Petition to institute a public use proceeding																																																																																																																																																																					
140	110	240	55	Petition to revive unavoidably abandoned application																																																																																																																																																																					
141	1,210	241	605	Petition to revive unintentionally abandoned application																																																																																																																																																																					
142	1,210	242	605	Utility issue fee																																																																																																																																																																					
143	430	243	215	Design issue fee																																																																																																																																																																					
144	580	244	290	Plant issue fee																																																																																																																																																																					
122	130	122	130	Petition to Commissioner																																																																																																																																																																					
123	50	123	50	Petitions related to provisional applications																																																																																																																																																																					
126	240	126	240	Submission of Information Disclosure Stmt																																																																																																																																																																					
581	40	581	40	Recording each patent assignment property (times number of properties)																																																																																																																																																																					
146	760	246	380	Filing a submission after final rejection (37 CFR 1.129(a))																																																																																																																																																																					
149	760	249	380	For each additional invention to be examined (37 CFR 1.129(b))																																																																																																																																																																					
2. <input type="checkbox"/> Payment Enclosed: <input type="checkbox"/> Check <input type="checkbox"/> Money Order <input type="checkbox"/> Other				1. BASIC FILING FEE <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> <th>Fee Paid</th> </tr> </thead> <tbody> <tr><td>1001</td><td>770</td><td>201</td><td>385</td><td>Utility filing fee</td><td>\$770</td></tr> <tr><td>1002</td><td>310</td><td>206</td><td>155</td><td>Design filing fee</td><td></td></tr> <tr><td>1003</td><td>480</td><td>207</td><td>240</td><td>Plant Filing fee</td><td></td></tr> <tr><td>1004</td><td>760</td><td>208</td><td>380</td><td>Reissue filing fee</td><td></td></tr> <tr><td>1005</td><td>160</td><td>214</td><td>75</td><td>Provisional filing fee</td><td></td></tr> </tbody> </table>				Large Entity Fee Code	Entity Fee (\$)	Small Entity Fee Code	Entity Fee (\$)	Fee Description	Fee Paid	1001	770	201	385	Utility filing fee	\$770	1002	310	206	155	Design filing fee		1003	480	207	240	Plant Filing fee		1004	760	208	380	Reissue filing fee		1005	160	214	75	Provisional filing fee																																																																																																																															
Large Entity Fee Code	Entity Fee (\$)	Small Entity Fee Code	Entity Fee (\$)	Fee Description	Fee Paid																																																																																																																																																																				
1001	770	201	385	Utility filing fee	\$770																																																																																																																																																																				
1002	310	206	155	Design filing fee																																																																																																																																																																					
1003	480	207	240	Plant Filing fee																																																																																																																																																																					
1004	760	208	380	Reissue filing fee																																																																																																																																																																					
1005	160	214	75	Provisional filing fee																																																																																																																																																																					
2. EXTRA CLAIMS Total Claims: 57 -20 = 37 Independent Claims: 3 -3 = 0 Multiple Dependent Claims: 				2. SUBTOTAL (1) \$770																																																																																																																																																																					
2. EXTRA CLAIMS Fee from below: \$18.00 = \$666 Multiple Dependent Claims: \$86.00 = \$0				2. SUBTOTAL (2) \$666																																																																																																																																																																					
2. EXTRA CLAIMS <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Large Entity Fee Code</th> <th>Entity Fee (\$)</th> <th>Small Entity Fee Code</th> <th>Entity Fee (\$)</th> <th>Fee Description</th> </tr> </thead> <tbody> <tr><td>1202</td><td>18</td><td>2202</td><td>9</td><td>Claims in excess of 20</td></tr> <tr><td>1201</td><td>86</td><td>2201</td><td>43</td><td>Independent claims in excess of 3</td></tr> <tr><td>1203</td><td>290</td><td>2203</td><td>145</td><td>Multiple dependent claims</td></tr> <tr><td>1204</td><td>84</td><td>2204</td><td>39</td><td>**Reissue independent claims over original patent</td></tr> <tr><td>1205</td><td>18</td><td>2205</td><td>9</td><td>**Reissue claim in excess of 20 and over original patent</td></tr> </tbody> </table>				Large Entity Fee Code	Entity Fee (\$)	Small Entity Fee Code	Entity Fee (\$)	Fee Description	1202	18	2202	9	Claims in excess of 20	1201	86	2201	43	Independent claims in excess of 3	1203	290	2203	145	Multiple dependent claims	1204	84	2204	39	**Reissue independent claims over original patent	1205	18	2205	9	**Reissue claim in excess of 20 and over original patent	2. SUBTOTAL (3) \$0																																																																																																																																							
Large Entity Fee Code	Entity Fee (\$)	Small Entity Fee Code	Entity Fee (\$)	Fee Description																																																																																																																																																																					
1202	18	2202	9	Claims in excess of 20																																																																																																																																																																					
1201	86	2201	43	Independent claims in excess of 3																																																																																																																																																																					
1203	290	2203	145	Multiple dependent claims																																																																																																																																																																					
1204	84	2204	39	**Reissue independent claims over original patent																																																																																																																																																																					
1205	18	2205	9	**Reissue claim in excess of 20 and over original patent																																																																																																																																																																					
Other fee (specify) Other fee (specify) 				*Reduced by Basic Filing Fee Paid																																																																																																																																																																					
**or number previously paid, if greater; For Reissues, see above				*Reduced by Basic Filing Fee Paid																																																																																																																																																																					
SUBMITTED BY						Complete (if applicable)																																																																																																																																																																			
Typed or Printed Name		Jeffrey E. Griffin				Reg. Number																																																																																																																																																																			
Signature						36,534																																																																																																																																																																			
						Deposit Account User ID																																																																																																																																																																			

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038. This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you are required to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450. If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Julian R. Cudmore, et al.

Attorney Docket No.: 102.0026

Serial No.:

Art Unit:

Filed:

Examiner:

For: **System and Method for Optimizing Production in an Artificially Lifted Well**

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that these **Drawings** (11 sheets) are being deposited with the United States Postal Service as Express Mail No. EV 335954425 US in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Rhonda J. Smith
Rhonda J. Smith

February 3, 2004
Date

Rhonda J. Smith
Schlumberger Technology Corporation
14910 Airline Road
Rosharon, Texas 77583-1590

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Julian R. Cudmore, et al.

Attorney Docket No.: 102.0026

Serial No.:

Art Unit:

Filed:

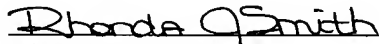
Examiner:

For: **System and Method for Optimizing Production in an Artificially Lifted Well**

Mail Stop Patent Application
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

CERTIFICATE OF MAILING

I hereby certify that this **Information Disclosure Statement with references** is being deposited with the United States Postal Service as Express Mail No. EV 335954425 US in an envelope addressed to: Mail Stop Patent Application, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.


Rhonda J. Smith

February 3, 2004
Date

Rhonda J. Smith
Schlumberger Technology Corporation
14910 Airline Road
Rosharon, Texas 77583-1590